


Aidan Harries


Computer Engineer

Recent Computer Engineering graduate with a comprehensive background in both software and hardware engineering. Specializes in AI and machine learning, with practical experience in web design and microcontroller-based systems. Recognized for strong analytical and problem-solving skills, with a continuous drive to learn and adapt to new technologies. Enthusiastic about contributing to innovative projects in the tech industry.

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 Ames, IA

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SKILLS

Software Engineering	Microcontroller Programming	Front-End Development
Hardware Engineering	Embedded Systems	Back-End Development
AI and Machine Learning	Data Analysis	Project Management
Web Development	Digital Signal Processing	Team Collaboration

EDUCATION

B.S. in Computer Engineering

Kansas State University

2019 – 2024

GPA: 3.51
Manhattan, KS

WORK EXPERIENCE

Undergraduate Researcher

Laboratory for Knowledge Discovery in Databases

2023 – Present

Manhattan, KS

- Contributed to AI and machine learning research projects, focusing on algorithm development and optimization.
- Developed and tested machine learning models to enhance performance and accuracy in data analysis tasks.
- Presented research findings at academic colloquiums, effectively communicating complex concepts to diverse audiences.
- Collaborated with a multidisciplinary team to explore innovative approaches in knowledge discovery and data mining.

Teaching Assistant

Kansas State University

2023 – 2024

Manhattan, KS

- Assisted in teaching introductory Python courses, providing support to students through grading, office hours, and one-on-one tutoring.
- Developed and implemented instructional materials to enhance student comprehension and engagement in programming concepts.
- Facilitated classroom discussions and practical coding sessions, helping students build a strong foundation in Python programming.
- Supported professors in course management and administrative tasks, contributing to the overall efficiency of the educational process.

PORTFOLIO

Senior Design Project

Proxima Centauri

<https://github.com/aidanharries/Unity-Senior-Design-Project>

2023

- o Led a team to develop an arcade-style game, blending classic gameplay with modern mechanics, achieving first place at the senior design expo.
- o Implemented engaging gameplay, 16-bit pixel-art graphics, and intuitive controls, optimizing performance for Windows PC.

Advanced Regression

House Prices

<https://github.com/aidanharries/Advanced-Regression-House-Prices>

2023

- o Built a regression model to predict house prices using the Ames Housing dataset, employing PyTorch and advanced regression techniques.
- o Conducted data preprocessing, exploratory data analysis, and model evaluation, achieving promising accuracy levels.

Operating Systems

One Program, Three Ways

<https://github.com/aidanharries/Operating-Systems-One-Program-Three-Ways>

2024

- o Implemented a single program using Pthreads, MPI, and OpenMP to compare parallel programming models on large datasets.
- o Analyzed performance and scalability, enhancing understanding of parallel computing paradigms and their practical applications.

IoT Project

Garage Door Opener with Authentication

<https://github.com/aidanharries/IoT-Garage-Door-Opener-with-Authentication>


2024

- o Developed a sophisticated garage door opener system with authentication capabilities using ESP32, Raspberry Pi, NFC, and various sensors.
- o Utilized C, Python, and MQTT for seamless communication, providing real-time updates for door status and vehicle proximity.


PROGRAMMING LANGUAGES

Python	C#	HTML	VHDL	Assembly	Linux
C	Java	CSS	Verilog	R	Shell
C++	JavaScript	SQL	MATLAB	Lua	Makefile


CERTIFICATES & LICENSES



MATLAB
MathWorks



SOLIDWORKS
Dassault Systèmes



Unity: Game Developer
Unity